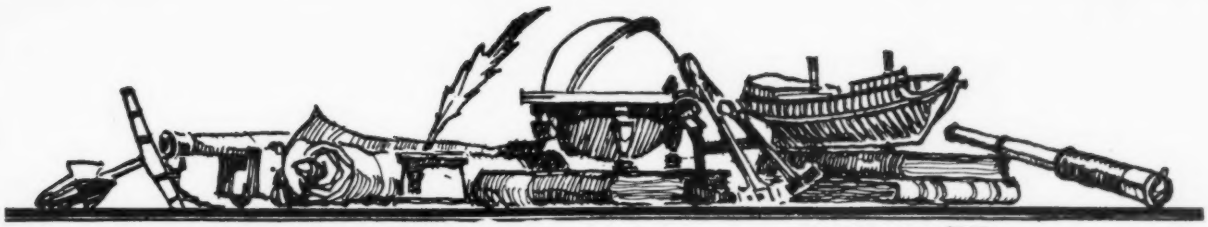


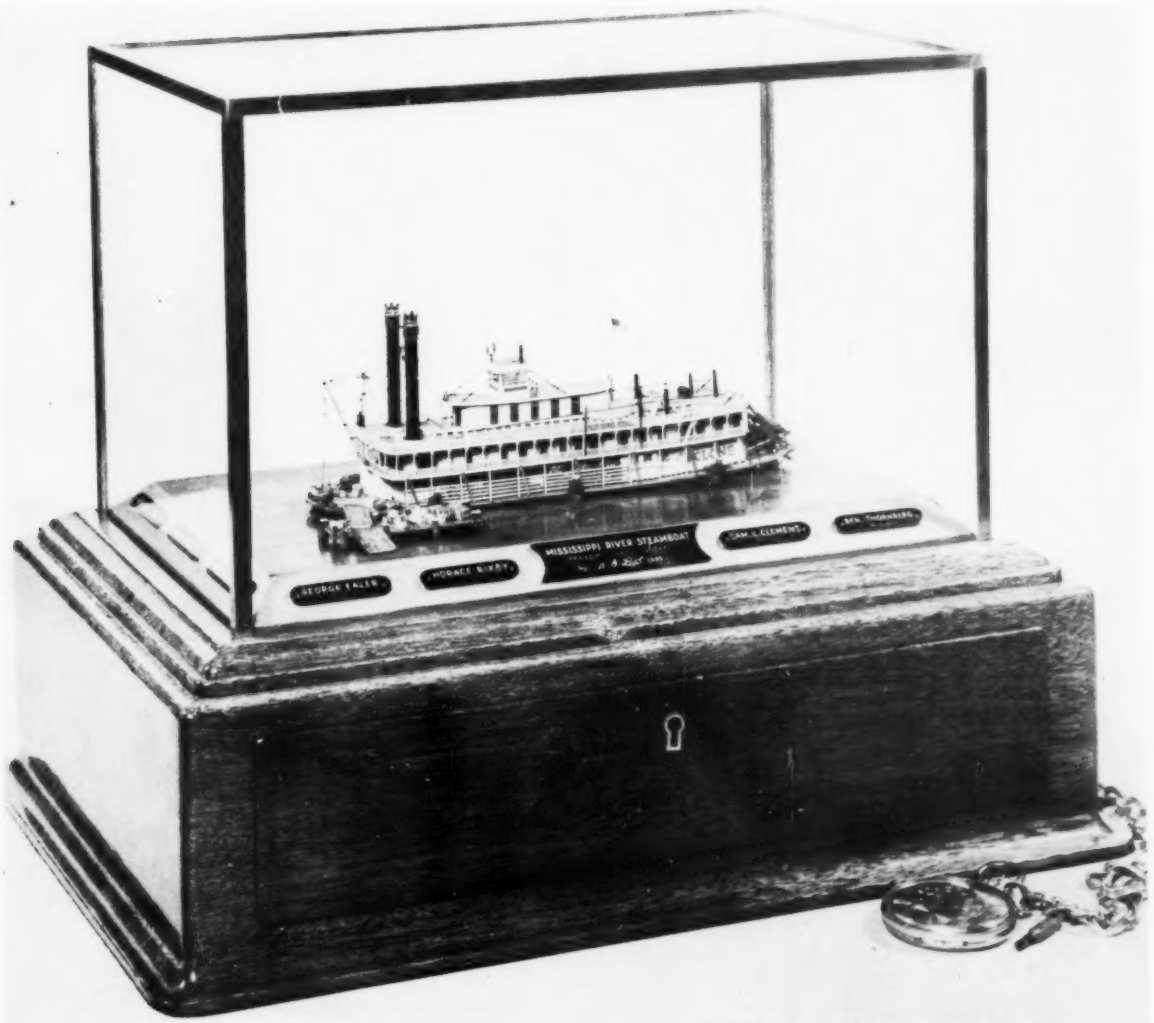
NAUTICAL RESEARCH JOURNAL

PUBLISHED BY THE NAUTICAL RESEARCH GUILD

Vol. 8 No. 2

Secretary-Treasurer
JAMES W. HARBIN, JR.
4110 Beall Street
LANDOVER HILLS, MARYLAND

MARCH-APRIL 1956



MISSISSIPPI RIVER STEAMBOAT
PERIOD---1850--1860
BY A. G. LAW

NOTABLE MINATURES

By A. G. Law and D. McNarry

The Minature Missippi River Steamboat appearing on the frontpiece is of the type contemporary with the period when Samuel L. Clemens ("Mark Twain") was an active river pilot. The little vessel measures 7-3/4 inches overall and is shown loading cotton and other cargo at one of the river's many points of call.

The FLYING CLOUD is 9½ inches overall in length and 5-3/4 inches from waterline to main truck. The model is sheathed with copper - each sheet measuring 1/8" x 1/28" x 1/1000". The furled sails were made of rice paper.

Built by Donald McNarry

The Brig LEXINGTON was built to a scale of 1/32nd inch for each foot. Overall length is 4 inches and the height from waterline to main truck is 3½ inches.

Actual size.

THE CONTINENTAL FRIGATE "CONFEDERACY"

By Douglas H. Robinson, M.D.

Much material has survived on the frigates built for our Navy during the Revolution, and these men of war deserve more attention than they have received from model builders. Compared to the "Constitution" and other American frigates designed twenty years later, their greater sheer, generally "lighter" appearance, extensive carving and colorful painting schemes make the Revolutionary vessels potentially more attractive models. Detailed plans have survived in the British Admiralty Collection of Draughts of the captured American "Hancock" and "Raleigh" 32s, and the "Virginia" 28, and several models have been built of the first two. A builder's draught of the "Randolph" 32 has survived in this country, but I know of no models built from this drawing altho spar dimensions are also available. These ships belong to our first frigate building program, voted in 1775, which included a total of 13 vessels. Less well known are the frigates of the later 1776 program, of which only the "Alliance" and "Confederacy" were built.

I have been interested in the "Confederacy" since finding her redrawn sheer draught and spar dimensions from the British Admiralty collection in Howerd I. Chapelle's "American Sailing Navy". Of uncommon length, heavily carved, and with unusual features such as row ports on the berth deck, I felt she would make an interesting model. Two years of research on this ship have uncovered a wealth of previously unpublished data, much of it directly useful for model building, and this article is intended to place this information before model builders of this country with the thought that others may be stimulated to build models of the Revolutionary frigates.

On November 20, 1776, Congress authorized an extensive building program which, among other vessels, included five 36 gun frigates, the first of this size to be built for the Revolutionary Navy. Only two of the 36s were ever finished, The "Confederacy" built in Connecticut, and the "Alliance" built in Massachusetts. Allotting the vessels to the various colonies, Congress on January 23, 1777, authorized the building of one (not yet named, of course) in Connecticut.

In response to this, the Governor of Connecticut on Feburary 12 appointed Joshua Huntington of Norwich to "superintend and execute the building of said Frigate at some proper Place in the (Connecticut) River between Chelsea and New London". Previously an officer in the Continental Army, and a well known figure in the area, Major Huntington was at this time operating a small shipyard at Norwich where he was building the schooner "Chelsea" for private account. With commendable promptness, he at once set about the enormous task of recruiting workmen, organizing a supply of shipbuilding timber and all the other necessities for building and equipping a 160 foot warship in what was, in effect, an out of the way spot in the backwoods of a country losing a war and largely occupied by the enemy. The first necessity was to cut timber while high water in the Connecticut River and its tributaries would serve to float the logs to the shipyard, and this work began even before specifications of the ship came to hand. Six days after the contract was awarded, on February 18, Major Huntington's papers note "began to work", and many documents record the progress of the timber cutting gangs in the woods. Some of their difficulties are set forth in a note to Major Huntington from James Storer in "The North Parish of New London April th. 8th yr. 1777":

Mr. Joshua Huntington Sir after acquainting you that I have a number of

men in the woods getting some Perticular sticks of timber for the Ship these are to Desier you to send me by the barer two Gallends of Rum which I think will be of Great Benefit to forward the Business your Compliance with this will Greatly Oblige sir your Humble Servant

James Storer

A good deal has been written in recent years on the design of the early Continental frigates, with alternative speculations as to whether the ships were built from a centrally prepared design or whether designs were elaborated locally by the builders. In the case of the "Confederacy", surviving correspondence shows clearly that she was designed in Connecticut on instructions prepared in Philadelphia. We have Oliver Wolcott of the Marine Committee in Philadelphia writing to Major Huntington on March 11, 1777:

As to the draught or Description of the Frigate which you are to Build, it has of late been neglected to be sent, the Committee have left it to the Descretion and Emulation of those employed in the several States to Rival each other in the Perfection of Building. But I shall endeavour to send (or procure it to be done, by the Board of Assistants to the Marine Department who act under the direction of the Marine Board) such Draughts as may be proper.

This was followed by another letter March 15:

I now send you Directions for Building the 36 Gun Frigate made out by the Board of Assistants--They apprehend that they may be sufficient for your Direction--They have no Draught and say it would take a Fortnight to make one but if you Shall find it necessary you will inform and it will be provided for you--

Very fortunately the "Directions" forwarded by Wolcott have survived. Written in what I believe to be the hand of Joshua Humphreys, they read as follows:

Dimentions of a Frigate to Carry 36 Guns

	feet	in.
Length of Keel for Tonage, allowing 3/5 of the Beam abaft the rabbit of the Stem to the fore Side of the sternpost	133	--
Extream Breath of Beam from outside to outside of the timbers	35	6
Depth in the hold	11	6
Height between Decks from plank to plank	6	--
Waste Amids	5	3
Breadth of Transom	21	6
Rising of Mid's floor timber	2	--
Breadth of floor	14	3
Tumbling home top timber	3	6

Port Cills from Deck . . . . . .)	1 . 8
do. fore & Aft in the Clear . . . . . .)	2 . 6
do. Up & down . . do . . . . . .)	2 . 4
Distance between the ports . . . . . .)	7 . 5
Height Under the Quarter Deck from plank to plank . . . . . .)	6 . 10
Height of forecastle from plank to plank . . . . . .)	6 . 2
Length of do. from fore Side of breah'. Bulkhead	29 . --
do. Quarter Deck within 2 feet of the Main Mast .	
Beak head Bulkhead abaft the Apron	2 . 9
Fore most port abaft the after part of the Beak head Bulkhead	3 . 6
After port from fore Side Rudder	9 . 6
Hanging of the Gun Deck	1 . 9

To carry 28 Guns on the Main Deck
6 do. Quarter Deck
2 do. fore castle
36

Under this list, in another handwriting, appears:

Instructions for Capt. Huntington to Build a 36 Gun Frigate in Connecticut, made out by the Board of Assistants, by Order of the Marine Committee--Certified

By Oliver Wolcott

Nothing explicit has survived to show who designed the "Confederacy" from these specifications, though years later his widow claimed that Benjamin Talman had been the "builder of the 'Confederacy'." Some obviously able person prepared the well modeled design shown in the Admiralty draught, and I believe that the "Alliance" was designed in Massachusetts to the same specifications. Unfortunately no material on her has survived to serve as a comparison, other than her principal dimensions which are not dissimilar.

The keel must have been laid within a few weeks after the "instructions" arrived, and Huntington's papers show that work was being done in the yard in May, 1777. At this time the frigate was known unofficially as "the ship Congress'" or "The Continental Ship". Work proceeded slowly, it would seem, through 1777 and the first half of 1778. Green timber was of course used throughout and this undoubtedly was responsible for the ship being condemned four years later. Plans had been made to procure materials so that construction could proceed rapidly. To Benjamin Franklin, the American Ambassador in France, was sent a list of "Materials for a Frigate of 36 guns" in the hope that they could be procured abroad. The list follows in part:

CANVAS FOR SAILS &c.

A	French	3096	Ells	equal to No.	1	English	3870 yards.
B	do.	2784	do.		2	do.	3480 do.
C	do.	2240	do.		3	do.	2800 do.
D	do	3456	do.		6	do.	4320 do.
E	do.	936	do.		7	do.	1170 do.
K	do.	676 4/5	do.		8	do.	846 do.

BOLT ROPE

180	Fathoms	5½	inches	310	Fathoms	2 inches
270	do.	3¼	do.	250	do.	1½ do.
270	do.	2½	do.			

CARPENTERS STORES

600 lns. white lead)
100 lbs. yellow ocre)
100 lbs. black paint) All ground in oyl.
100 lbs. Spanish Brown)
1 Crate of Sheet Glass)

CANNON

Main Deck	28-12 pdrs @ 30 cwt.
Quarter deck & Forecastle	8-6 pdrs @ 18 cwt.

ANCHORS

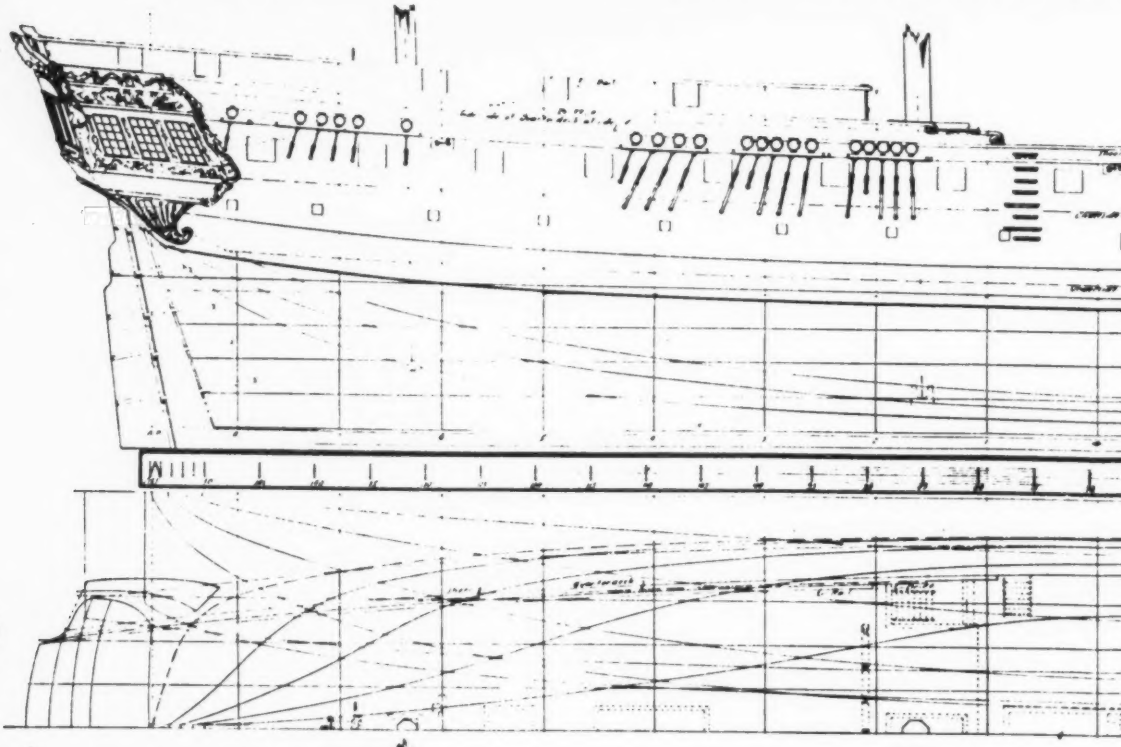
1 Sheet anchor		1 Ton 18 cwt.
3 Bowers	each	35 cwt.
1 Stream		12 cwt.
1 Kedge		6 cwt.

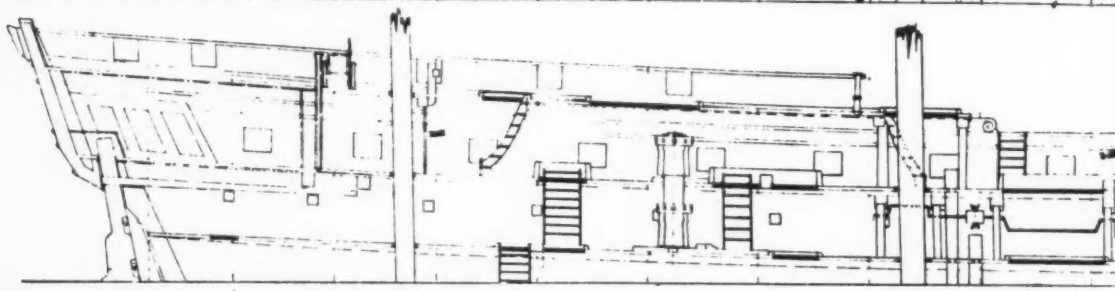
CABLES & CORDAGE

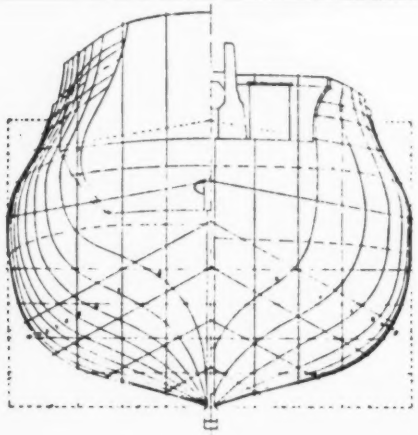
2 Cables	110 fathoms	17 inch
4 do.	102 do.	16 do.
2 do.	120 do.	15 do.
2 Hawsers	120 do.	10 do.
2 do.	110 do.	8 do.
2 do.	130 do.	6 do.
2 do.	130 do.	5 do.

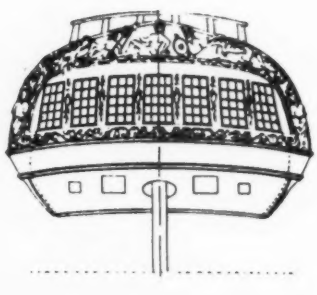
Main shrouds, 8 of a side	152	fathoms	8½	inches)		
Fore do. do.	144	do.	8	do.)	Cable laid	
Main stay	16	do.	10½	do.		
Main spring stay	14½	do.	9	do.		
Fore stay	14½	do.	10	do.		
Fore spring stay	13½	do.	8½	do.		
Mizen shrouds, 5 of a side	90	do.	7	do.		
Mizen stay	13½	do.	8	do.		
Mizen spring stay	12	do.	6½	do.		
Main Topmast shrouds 5 of a side	100	do.	6	do.		
Main Topmast back stay & Topmast stay 4 of a side	220	do.	7	do.		
Fore Topmast shrouds 5 of a side	95	do.	5 3/4	do.		

Draught of CONFEDERACY, *after the Admiralty dra*

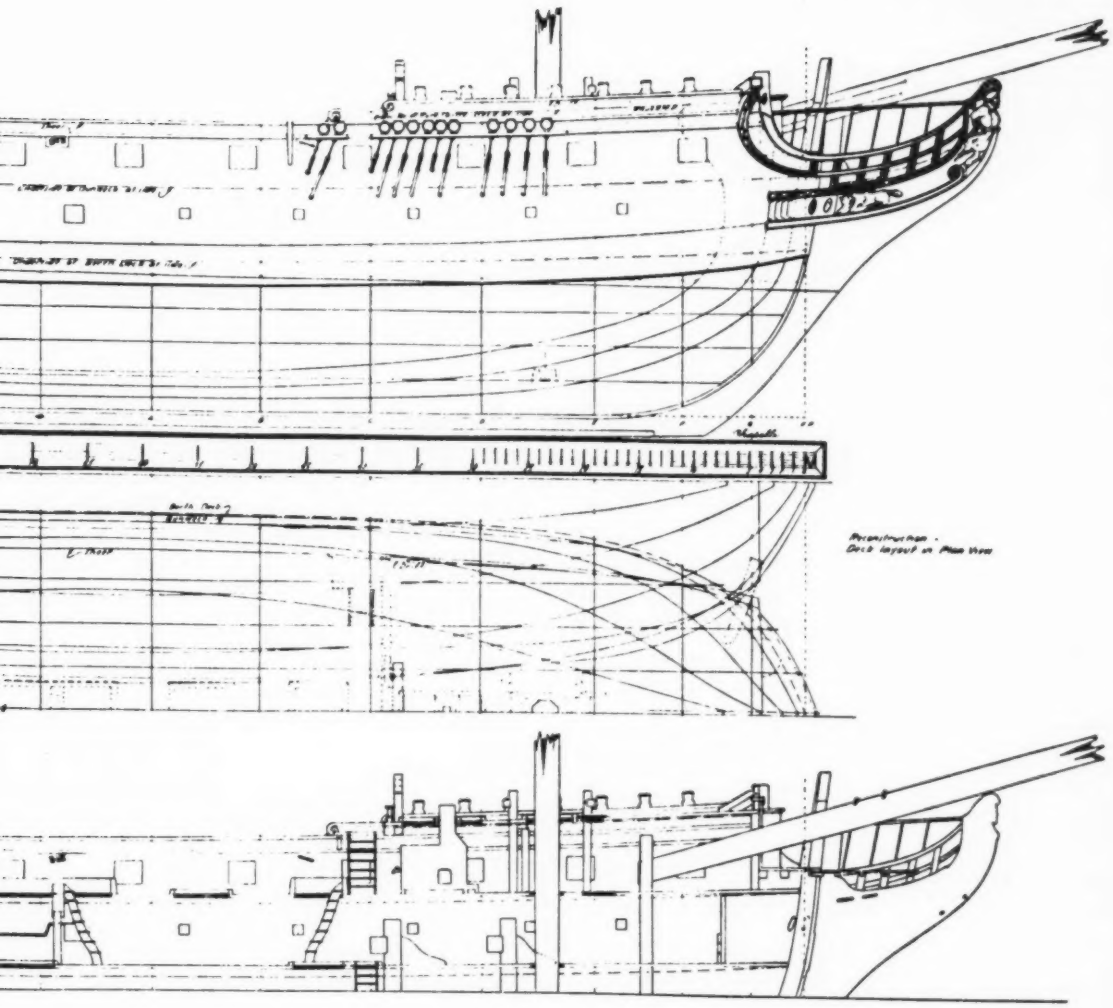




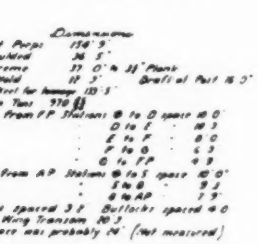


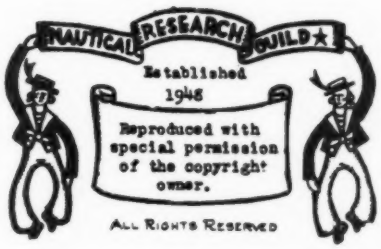


Noted by Secretary:
was accomplished b
of details shown o

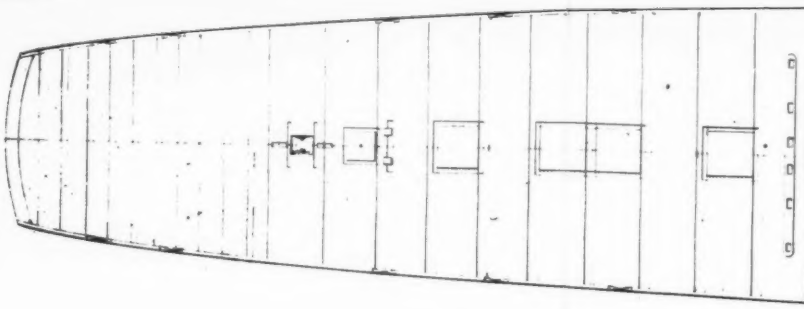


tary: The deck reconstruction shown above
ted by Mr. Chapelle prior to the discovery
own on page 36.

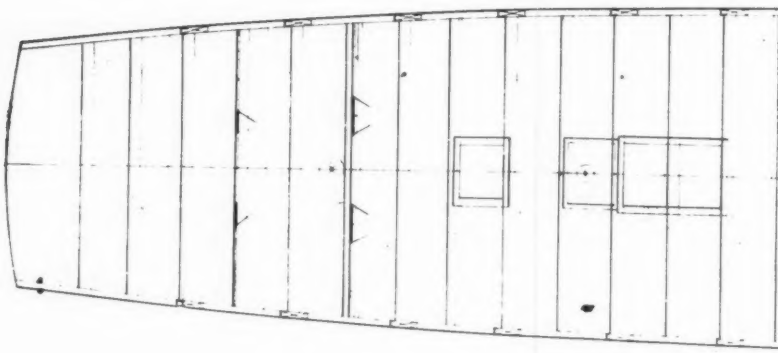




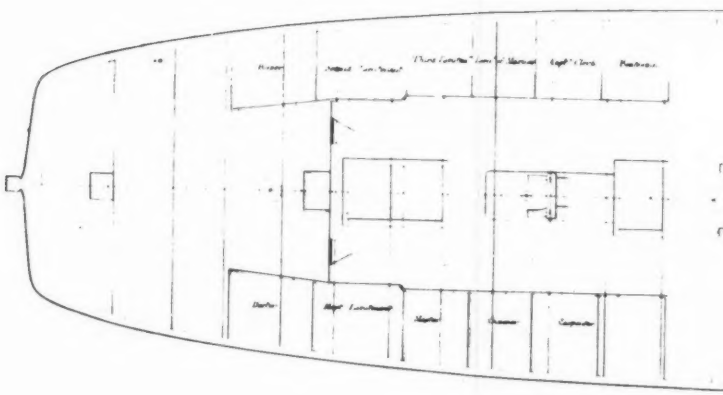
36 gun Frigate "Confederacy"
Admiralty Draught



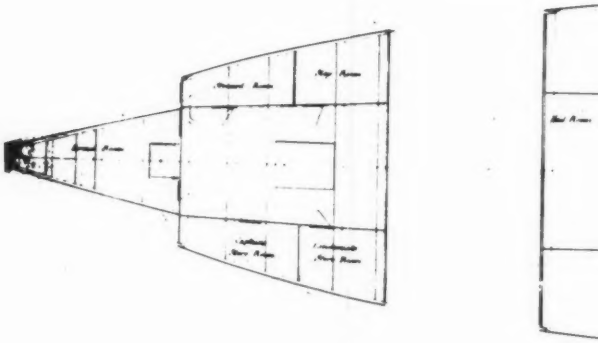
Confederate' Upper Deck.

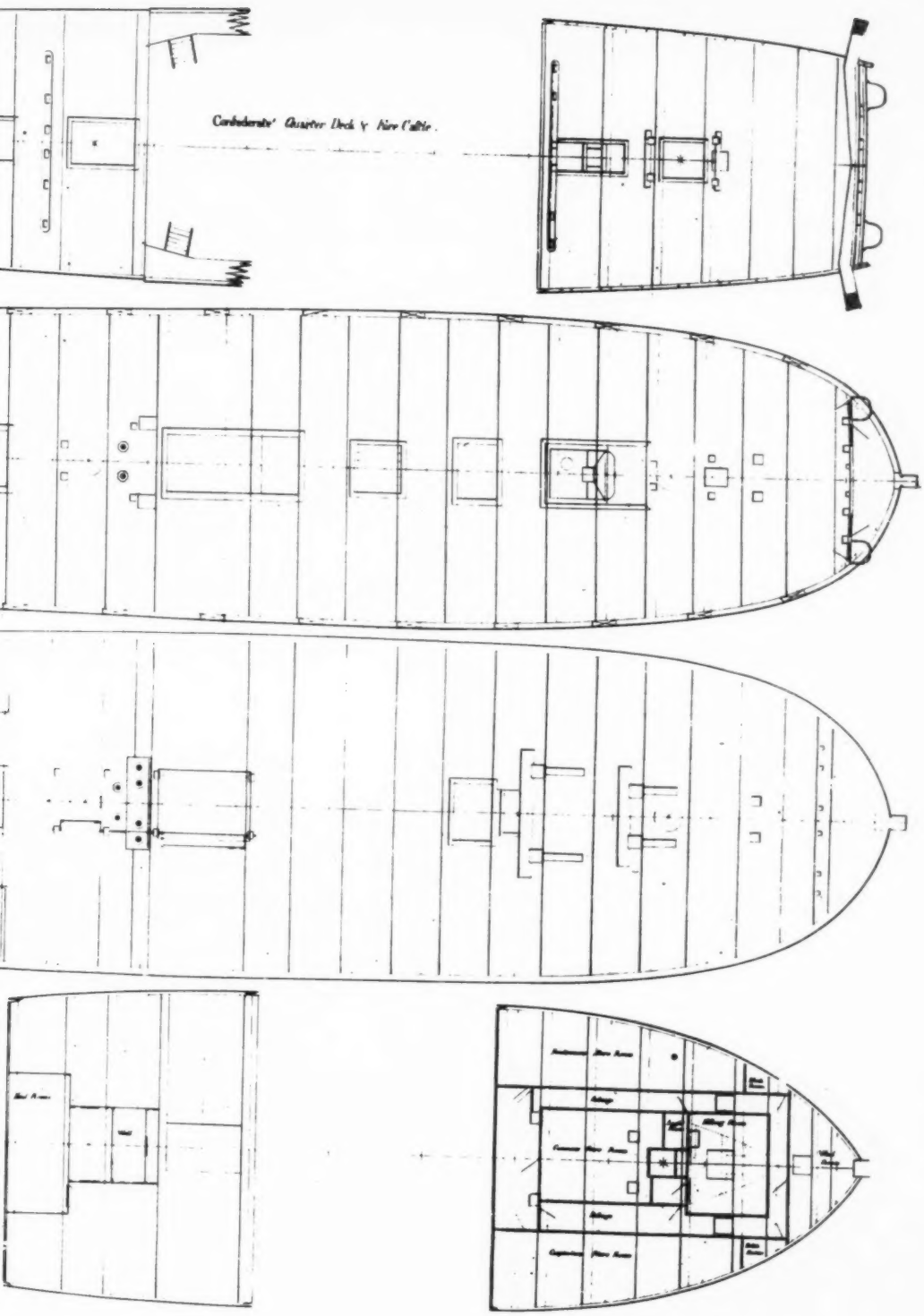


Confederate' Lower Deck.



Confederate' Platforms.




Confederate Quarter Deck & Fore Cabin.

Fore Topmast back stay & Topmast stay 4 of a side	220 fathoms	6½ inches
Lower Sheets, main & fore	180 do.	5 do.
Main tacks, each	20 do.	7 do.
Fore tacks, each	19 do.	7 do.

3 coils	100 fathoms	6½ inch	16 coils	80 fathoms	3 inch
3	do.	6	20	do.	2 3/4
4	do.	5½	20	do.	2½
4	do.	5	18	do.	2¼
8 coils	80 fathoms	4 3/4	18	do.	2
8	do.	4	20	do.	1 3/4
10	do.	3 3/4	20	do.	1½
10	do.	3½			

24 coils	5 thread	Hook	16 coils	4 thread	worming
16	12	Ratline	14	2	do.
14	19	do.	30 cwrs	2 & 3 yarn	spun yarn
18	6	Worming			

(Note that circumference measurements are given for all cordage).

There is no indication in the records left by Major Huntington or the Navy Board of the Eastern Department that French equipment was ever delivered for the "Confederacy". The list is useful, however, as indicating dimensions of cordage, etc., that might have been used in the 36 gun frigates.

Optimistically, the Navy Board expected that all the guns could be provided by one foundry at Salisbury, Connecticut, but in the end only a part of the guns came from the foundry, the rest were borrowed from the Army or taken from British prizes. With the war going badly for the Americans, there were many other difficulties which could be met only by improvisation. Iron was one of the hardest items to procure, and a considerable part of it was evidently obtained as salvage. On August 7, 1778, John Deshon of the Navy Board of the Eastern Department wrote to Huntington from New London that he had sent a man "to Narragansett after the anchors of the Cyrene, and for pig iron, &c", and on Aug. 26, 1778, he wrote from Providence "I send by Capt. Beebe a quantity of Iron which comes out of the wrecks of the men of war at N(ew). Port". Inflation and rising prices made the workmen dissatisfied. On May 5, 1778, the paymaster at the Norwich shipyard wrote to Major Huntington:

Sir, agreeable to your desire I offered the men five Shillings per night for keeping Guard at the ship which they Refused and Demand six shillings and Eight Pence and Half Pints of Rum each night which I did not think proper to Give without your order.

Congress on Sept. 25, 1778, finally resolved that the ship be named "Confederacy" (after the confederation of 13 states) and at the same time directly named Seth Harding the captain--a procedure evidently not unusual at that time, though not to be countenanced today.

On November 7, 1778, the ship was launched--perhaps with the "Cold Colation for Gentlemin and Ladys that are Spectators and something Generous and Comfortable for the carpenters, as is Customary among Merchants on such Occations", as John Deshon suggested to Major Huntington in a letter of October 30. She was towed down the river to New London to complete. Probably at this time James Warren of the Navy Board of the Eastern Department wrote to Major Huntington:

We propose in the course of a few days to send forward two or three Officers to do duty on board and forward your ship. Among whom we propose Lieut. Gross 1st Lt of the Confederacy for one. He had had the care of the New Ship at Salisbury (the "Alliance") and Expresses great Concern least the Shrouds should be cut too short as has been the case with that Ship. he is of the Opinion that your Masts should be of the length as below, and wishes the place for the Mizen Mast may not be fixed till he gets there. * 1/

Main mast 89 feet. The other Masts in proportion.

Fitting out proceeded very slowly. There were many complaints by Captain Harding, and increasingly sharp letters from the Navy Board, before the "Confederacy" sailed on her first cruise from New London on May 1, 1779. This cruise led her to Philadelphia, where she lay most of the summer. Possibly at this time Joshua Humphreys was aboard her and took down the dimensions preserved in his shipyard notebook--notably differing from those in the specifications for the ship:

Dimensions of Frigate Confederacy's hull	Feet	Inches
Length of Keel straight rabbit	133	--
Breadth of beam	36	8
Depth of hold	12	6
Height between decks	6	3
Gun deck from stem to stern	160	--
Length from fore part of stem to after part of the rudder	150	--
Length of the quarterdeck	84	--
Length of the Forecastle	40	--
Height of the forepart of the quarterdeck	6	8
Height of the afterpart of the Forecastle	6	4

Humphreys may at the same time have taken off the very complete set of spar dimensions which I plan to use in sparring my model, and which are given in the Appendix.

The rest of the history of this beautiful but unlucky ship in the American service may be briefly told. On Oct. 26, 1779, she sailed for France carrying the French Minister, M. Gerard, and John Jay, recently appointed American Minister to Spain. Twelve days out the "Confederacy" rolled her masts out, apparently due to stretching of the lower rigging, and wrenched off her rudder head. Under jury rig she made Martinique and lay there from Dec. 18, 1779, to March 30, 1780. The tedious story of remasting her with made over spars is told in great detail by Joseph Hardy, her Captain of Marines, whose journal has been published in full as an appendix to James L. Howard's biography of Seth Harding. The ship returned to Philadelphia April 27, 1780, and was at least partly refitted with new spars by John Turner, Mast Maker. Two incomplete sets of spar dimensions have survived among his papers and are given with other spar dimensions in the Appendix. One list apparently presents the dimensions of her original spars, the other seems to show those which Turner stepped in her. While lying in the river during the summer "Confederacy" was damaged forward by a collision. The Wharton and Humphreys shipyard repaired her, and their bill to the United States lists

- - - - - - - - - - - - - - - - - - -

1/ My copy of this letter is dated July 16, 1778. I suspect an error as the ship's name was not chosen until September and the Navy Board would hardly concern itself with masting and rigging problems before the ship was launched.

1 Log for cutwater
1 chock abaft do.
1 do. for front
2 pieces to scarf main rails
2 do. do. middle do.
1 piece for laceing
1 piece for bumpkin

The next cruise was to be a prosaic errand--to Cape Francois in Haiti to pick up stores for the Continental Army, in effect using a man-of-war as a transport. "Confederacy" left the Delaware Capes on Dec. 21, 1780, and five days later sprung her mainmast badly. This was fished, and she arrived at Cape Francois on Jan. 8, 1781. After loading a large cargo of military stores and taking on board 6 passengers, she sailed again for Philadelphia on March 15, 1781. She did not arrive, for off the Delaware Capes on April 14 she was intercepted by H.M. ship "Roebuck", 44, and H.M. frigate "Orpheus", 32. Claiming that resistance was useless because of the superiority of forces against him, Harding surrendered at once without firing a shot. "Confederacy" in fact had never fought an action against an enemy warship, tho she was more powerful than the average frigate of her rate in the Royal Navy.

Taken into New York on April 19, she aroused much interest and satisfaction, which shows in the letter written the next day by Vice Admiral Arbuthnot, commanding in the port, to the Secretary of the Admirality:

She was bound from Cape Francois to Philadelphia, Commanded by a Mr. Harding, and had on board Three Hundred Men at the time she was taken.

The Rebels have suffered a great loss in this ship, as she had a very considerable quantity of Cloathing for the Rebel Army, and West India produce.

Her length is equal to that of our old Seventy Gun Ships, and will mount Twenty Eight Eighteen Pounders on her Main Deck, is well constructed and proportioned, and only two years old.

A detailed survey of "Confederacy" was made immediately, and the report of this, dated May 3, 1781, was found for me in the Public Record Office in London. This might enable one to construct a built up model with some accuracy, and I give it in full:

		feet	inches
Length on the range of the Lower Deck		155	--
by the keel for tonnage		133	--
Breadth extream to the 3 inch plank		37	--
Depth in hold		11	8½
Burthen 967 tons.			
Height between decks from plank to plank	Afore	6	1½
	Midships	6	2¼
	Abaft	6	4½
of the Forecastle		6	10
Upper Deck port cills		1	7¼
Waist		5	8
Quarter Deck		6	6½

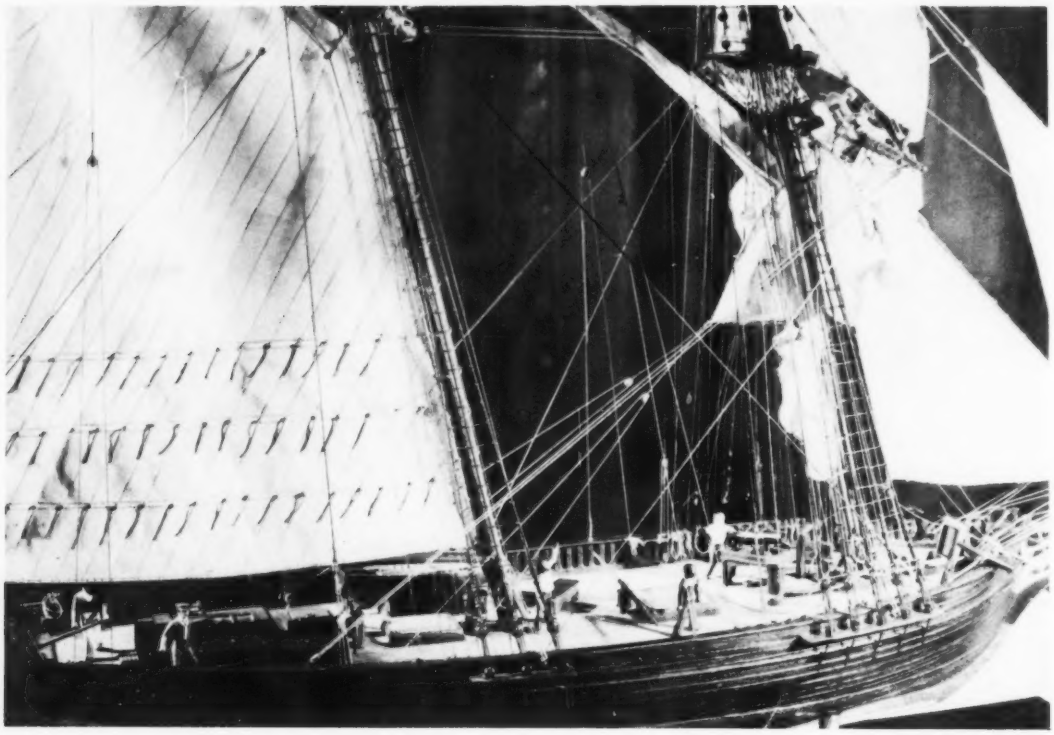
Upper Deck ports 14 No. on each side	Fore & Aft	2	6¼
	Deep	2	2¼
Length of the Forecastle from the Stantions of the	Beakhead	32	3
Quarterdeck from the aft side of the	Stern Timber	83	6

She is about three years old Built at Norwich in Connecticut had on board when taken 28 No. 12 pounders and 8 No. sixes. The main mast sprung four feet above the Quarter Deck but fish'd om each side with two oak fishes. The ship has been two voyages and the mast not complain'd of. The lower edge of the wale touch'd with ye worm. Suppose the bottom to be like it & purchas'd accordingly. The ship not being clear in the hold the scantling cou'd not be ascertained below the lower deck.

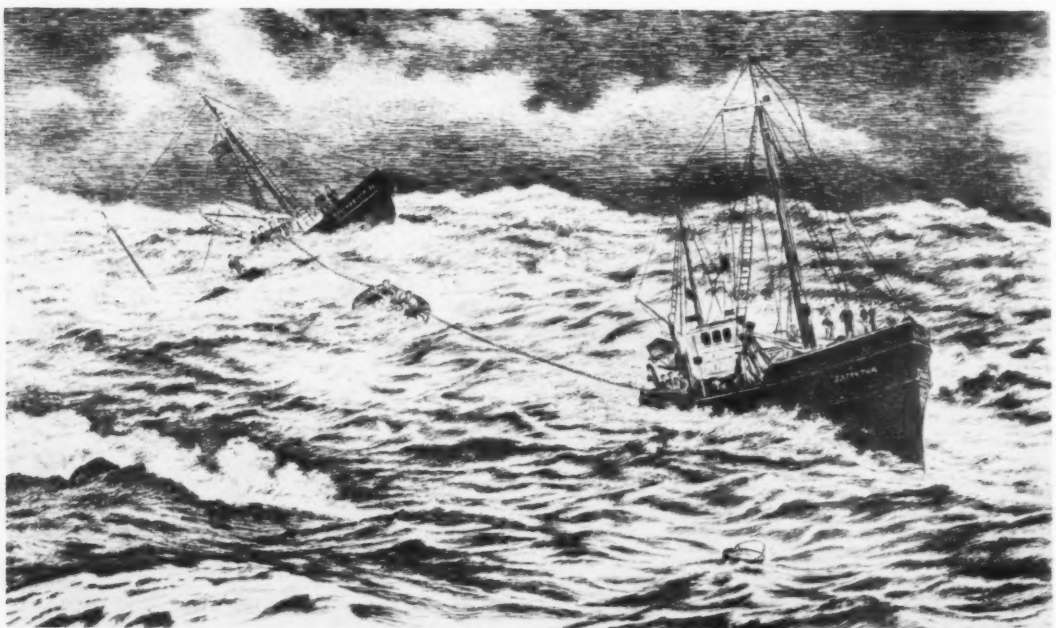
Futtocks third sided		--	10¼
moulded at the lower deck		--	9
upper deck		--	8½
fourth sided		--	10
moulded at the upper deck cills		--	6
Top timbers sided		--	10
in and out at the topside		--	5
Lower deck clamp in one strake	broad	1	2
	thick 4 and 2 ins. equal to 6 ins.		
spirketting in one strake	broad	--	9¼
	thick	--	3½
Beams 27 No. English fashion kneed at each end with			
one lodging & one dagger knee each sided		--	10
Beams	sided	1	2
	moulded	1	1½
Flat fir (evidently means thickness of deck planking)			
	thick	--	3
Breathook bolted with 13 bolts	long	15	--
	sided	--	11
Three hooks below the deck bolted with No. 13 bolts each			
	long	13	6
	sided	1	0½
Upper deck clamp two strakes upper	broad	--	9
	thick	--	5
lower	broad	--	9
	thick	--	5
Upper deck spirketting two strakes	each broad	--	8½
	thick	--	3½
Beams 29 No. English fashion kneed at each end			
with one dagger knee	sided	--	10
one lodging knee	sided	--	10
Beams	sided	1	2
	moulded	1	1½
Flat	thick	--	3
Breast hook bolted with 13 bolts	long	15	--
	sided	1	1½

Slaver "DOS AMIGOS" built by Richard Orr from plans contained in the book "History of American Sailing Ships" by H. I. Chapelle. The model was constructed to a scale of 1/4 inch to 1 foot.

Details of the "DOS AMIGOS"



The hull of the model is planked with walnut (dyed black), the deck is planked with white holly, the sails are Irish linen and the copper bottom consists of individual plates.



THEODOSIA P. CHASE drawing

Presented to SOFUS MORTENSEN *heroic captain of the fishing vessel* "JACINTHA" *by the Officers, Directors, and Members of the Seafood Producers Association of New Bedford Inc., for his bravery and seamanship in effecting the rescue of the eleven crewmembers of the vessel* "FRIENDSHIP II" *during the height of the hurricane of Aug 31, 1954.*

This drawing was provided by Robert W. Taber of Fairhaven, Massachusetts

Forecastle clamp in three strakes each	broad	--	9
	thick	--	4
Beams 7 No. English fashion kneed at each end with one hanging and one dagger knee	sided	--	7
Beams	sided	--	11½
	moulded	--	8½
Ports 1 No. on each side			
Flat	thick	--	2½
String in the Waist Oak two strakes each	broad	--	10
	thick	--	4
Quarter deck clamp in three strakes each	broad	--	8½
	thick	--	3½
Beams 22 No. English fashion kneed with one lodging and one dagger knee	sided	--	6½
Beams	sided	1	0½
	moulded	--	7½
Flat	thick	--	2½
Ports 5 No. each side			

On May 14, 1781, the prize was commissioned as H.M.S."Confederate" upon the establishment of a Forty Gun Ship, and in the middle of June she sailed for England. Her arrival at Falmouth July 19 is noted, together with the comment by the London Public Advertiser that

The Confederacy Frigate, lately arrived from New York, may be easily converted into a Ship-of-the-Line, for which she was first intended, her Keel and lower Timbers being equal to our Sixty-fours; so that she only wants raising.

These rosy hopes were soon to be dashed. On July 24, the frigate then lying in the Downs, a survey was held on her by Samuel Elliott, Carpenter. His findings are given in full:

The brick, lead & tin work in the galley very bad, and want repair--the coppers intirely unfit for their proper service--the wales, top sides, water ways, the spriketings, decks, etc. very leaky.

The catheads, fore, main and mizen channels)
The topsail sheet bitts, gallows bitts, belfry &)
breastwork. Rails of the forecastle. Supporters to) Intirely unfit for
the cable bitt pins, the hand & chain pumps, pump) their proper service.
cistern, capstan pawls, air scuttles, bulkheads)
portstern & quarter gallery sashes in the captain's)
cabbin

The quarter galleries very small & the upper stools, rims, etc. of each decay'd. Half ports, boat skidds, ladders, etc. wanting. The old unfit for service. The boatswain's, gunner's and carpenter's store rooms, bread room, etc. wanting repair.

Bulkheads wanting to devide the fish and spirit room.

The ship strains very much, and the plank drawn off the timbers in the wake of the chain bolts of the fore & main channels, and want shifting--one of the lower deck & one of the forecastle beams sprung in the midships.

The bottom foul and very much eat by worms--no visible defect in the bowsprit, foremast or mizenmast. The main mast sprung six feet above the quarter deck & fished.

Top masts, gallant masts, lower, top & topgallant yards want overhauling.

The ship wants general inspection.

A final note from the London Public Advertiser states, on Dec. 26, 1781:

The Confederacy Frigate, taken from the Americans by the Cruizers under Vice Admiral Arbuthnot, and brought to England by Capt. Cummings, has been surveyed in the River and found unfit for service.

Presumably she was broken up soon afterwards.

To my knowledge the deck plans have never appeared in this country. The drawings are undated. Tho they are extremely clear and explicit in most respects, I have as yet been unable to resolve a few questions to my satisfaction. The survey held on the ship in New York, as well as the original specifications, explicity mention a gun port each side on the forecastle. Evidently the gun was mounted between two of the timber heads shown, probably forward of the foremast in order to clear the fore rigging. With no forecastle bulwark, it would have been impossible to belay the foremast running rigging on a pinrail in the ordinary manner, and I have canvassed numerous suggestions as to how this rigging might have been made fast. The one that most appeals to me is to lash cleats to the inner side of the foremast shrouds and belay the running rigging to them. The running rigging of the spritsails and head sails may have belayed to a thwartships pin rail just abaft the beakhead bulkhead. Some of the heavier lines, such as halyards, were probably belayed on the fife rails at the foot of the foremast.

The quarterdeck plan clearly shows a gangway extending forward from the quarterdeck to the forecastle, at the level of the rail in the waist. This would have given less than 5 ft. 8 in. headroom towork the waist guns, but apparently this would be considered adequate. No protection is shown for the men using this gangway, but probably a netting on light stanchions, or at least a lifeline, would have been rigged.

The color scheme--and the design of the boats--are for me the two unsolved questions concerning the "Confederacy". From Captain Hardy's journal, we know that the ship's bottom was payed for 5 feet under the wales with white lead and tallow while she was at Martinique, and yards and mastheads were painted black. One entry describes paying the ship's side with lampblack and tar, but I would be reluctant to conclude from this that she had black-painted sides. There is a contemporary painting of Confederacy's" near sister, the "Alliance", now hanging in the office of the Secretary of the Navy in Washington. Captain J. W. McElroy USNR examined this painting for me and notes:

Black appears to be the basic color of the hull but she has a wide brownish strake in which nine bright red gun ports are shown. The wales and gunwales also appear black as does the stern. The black stern is decorated with much gilt or yellow trim. Six vertical gold or yellow lines are arranged across the counter. Above the "windows" made by these lines there appears to be more filagree work framed by the shape of the transom stern.

As for the boats, it is possible to determine from Captain Hardy's diary that while in Martinique the "Confederacy" had a barge, cutter "rigged sloop fashion", pinnace, jollyboat and yawl. Their sizes are nowhere given.

ACKNOWLEDGEMENTS

I should like to acknowledge the assistance and encouragement of Mr. Marion V. Brewington, who directed me to some of the material in this article. Mr. A. H. Waite of the National Maritime Museum, Greenwich, England, located the four original deck plans of the "Confederacy" in the Admiralty collection and was very helpful in providing photostat copies. Mr. G. Radcliffe Mellor of the Public Record Office, London, England, found and copied the two British surveys on the "Confederacy". The Public Record Office, London, gave permission for these to be reprinted. I am indebted to the Franklin Institute, the Historical Society of Pennsylvania, the

Massachusetts and Connecticut Historical Societies for permission to publish other material in this article.

Plans of the CONFEDERACY included herewith are from Howard I. Chapelle's "History of the American Sailing Navy" and reproduced with special and kind permission of the author. The deck details were reproduced from prints obtained from the British Admiralty and it is believed this is the first instance of their presentation in this country.

-0-0-0-0-

APPENDIX

SPAR DIMENSIONS OF THE "CONFEDERACY"

One complete and two partial spar dimensions for "Confederacy" are here published for the first time.

"H" figures are from the very complete list given by Joshua Humphreys in his manuscript notebook now in the archives of the Historical Society of Pennsylvania. I believe these are her spar dimensions as originally built.

"T 1" is a partial list made by John Turner, Mast Maker of Philadelphia, preserved in the Franklin Institute Collection--apparently the spars he installed in the ship in the summer of 1780.

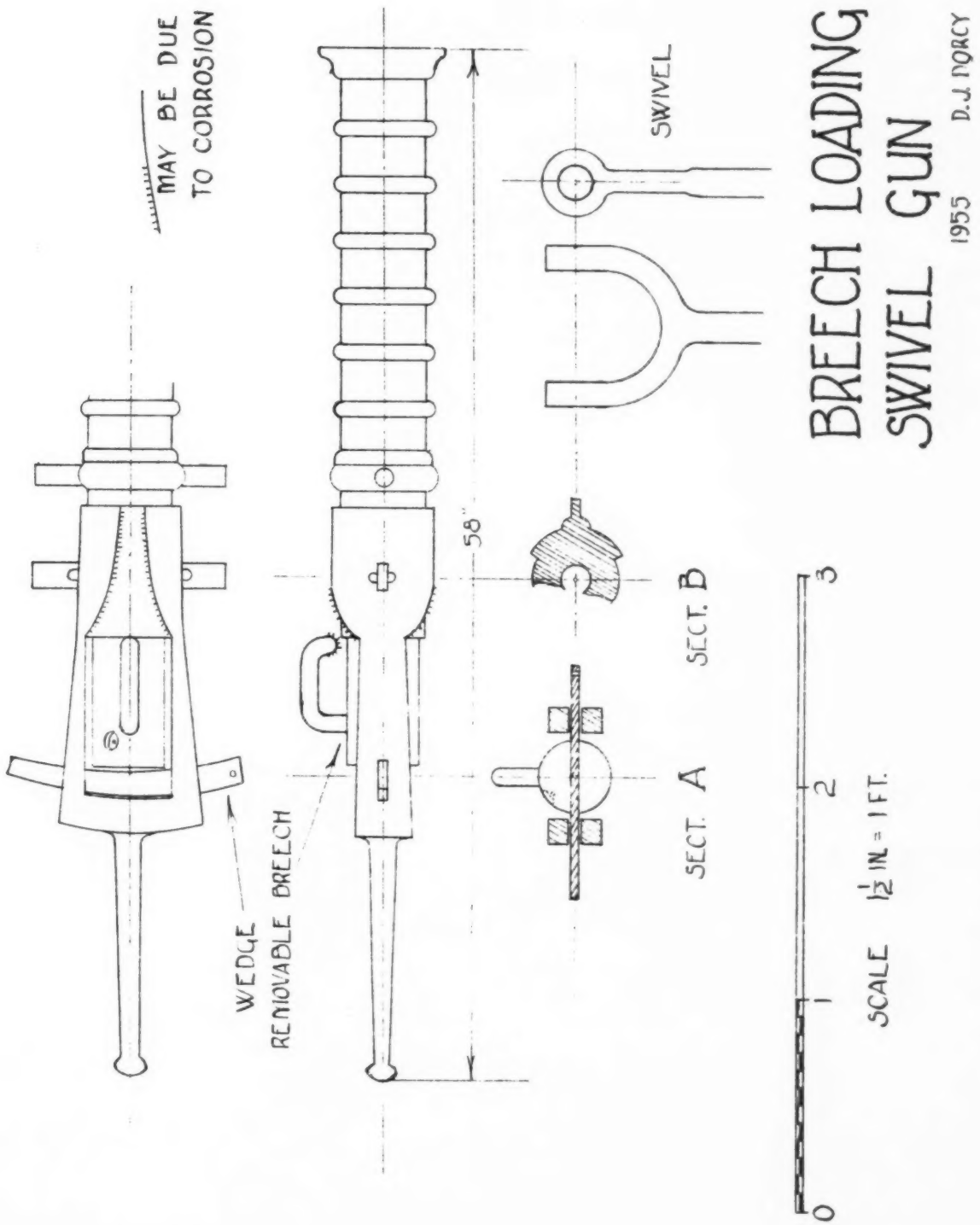
"T 2" is another Turner list in the Franklin Institute, possibly his figures for the spars fitted in the ship originally.

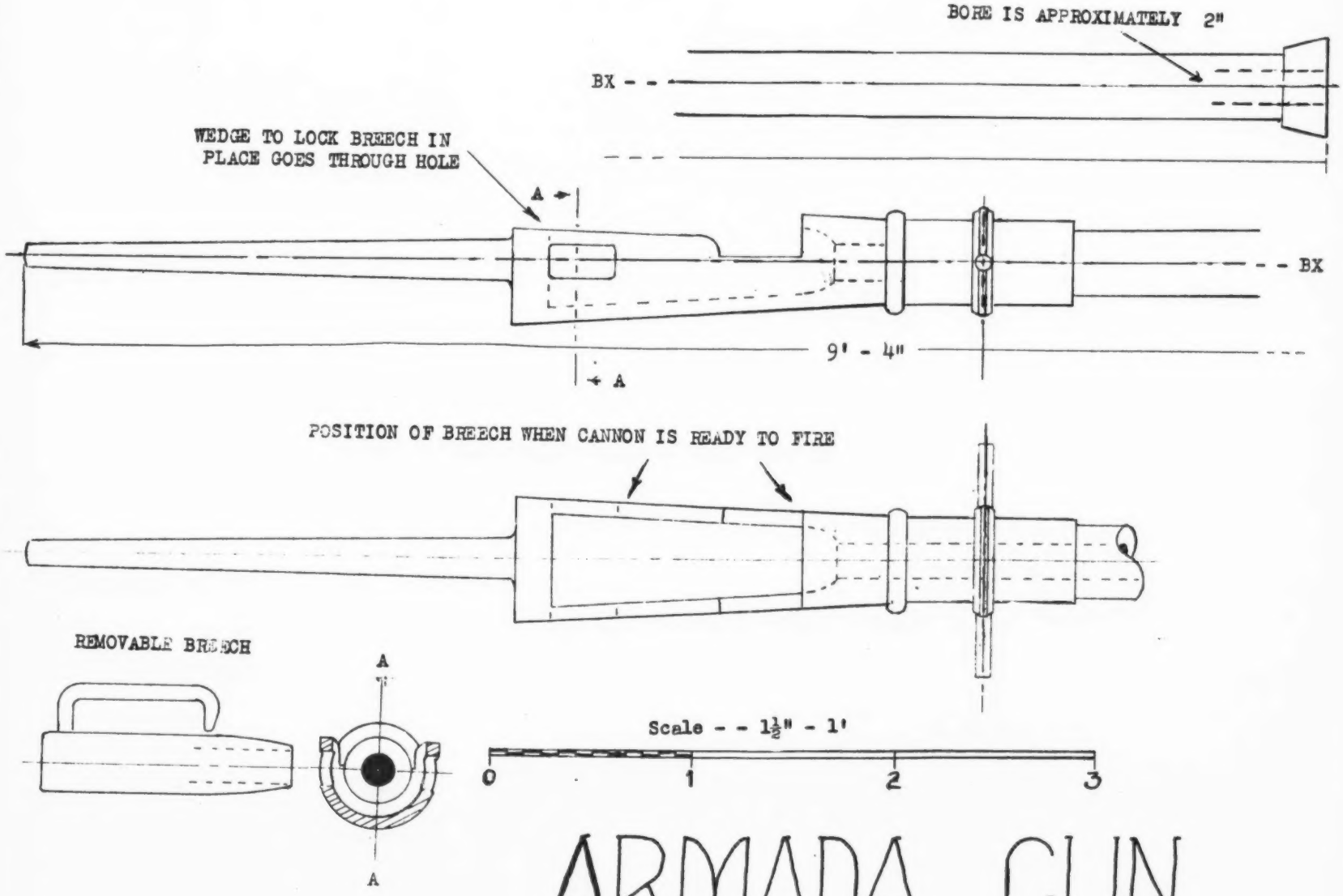
"A" are the dimensions given with the Admiralty Draught of the ship. They have previously been published by Howard I. Chapelle in "The American Sailing Navy", but here given for comparison. I cannot account for the 97 foot main mast in the Admiralty list--it may have been stepped after the ship's arrival in England. We know that the main mast in her at the time of the capture was badly sprung.

		MAST			YARD		
		L.FT.	DIA. IN.	HEAD FT.	L. FT.	DIA.IN.	ARMS FT
MAIN	H	88	28	12½	86½	19	--
	T1	89	28	13	86	--	4½
	T2	--	--	--	--	--	--
	A	97	27 3/4	--	86'2"	18 3/4	--
FORE	H	82	27	11½	76	18	--
	T1	81½	--	12½	74	--	4
	T2	--	--	--	--	--	--
	A	78¼	27	--	74	16½	--
MIZEN	H	77	21	9½	60	12¼	-- (CROSSJACK)
	T1	--	--	--	60	--	3
	T2	77	28?	9½	--	--	--
	A	76¼	20 3/4	--	60	--	--
MAIN TOP	H	53	19	7½	64	12½	--
	T1	56	18	7½	58	12	5½
	T2	53	19	7½ included	64	12½	5'8"
	A	56	17½	--	58	12¼	--

		MAST L.FT.	DIA. IN.	HEAD FT.	YARD L.FT.	DIA. IN.	ARMS FT.
FORE	H	48	18¼	7	58	12	--
TOP	T1	53½	17	7	52	11 3/4	5
	T2 whole	48	18¼	7-included	58	12	5'2"
	A	53½	16½	--	52	11 3/4	--
MIZEN	H	38	13	5½	46	10	--
TOP	T1	62sic.	--	24sic.	42	--	3½
	T2	--	--	--	--	--	--
	A	44	13	--	42	--	--
MAIN	H	28½	12	23	38	7¼	--
T'GALT.	T1	46	10½	18-included	36	7	2½
	T2	28½	12	23 head	33	7¼	--
		above all--upper part 7 in. diameter					
	A	28½	11	17	30	7½	--
FORE	H	26	11½	21	34	6½	--
T'GALT.	T1	44	10	17-included	34	6 3/4	2
	T2	26	11½	21 head	34	6½	--
		above all--upper part 6½ in. diameter					
	A	27¼	10	17	34	7	--
MIZEN	H	20	8½	16	28	5¼	--
T'GALT.	T1	--	--	--	26	--	1½
	T2	20	8½	16 head	28	5¼	--
		above all-upper part 4½ in. diameter					
	A	20	6½	11 3/4	33 3/4	--	--
ROYAL YARDS H ONLY		Main 21 ft.		Fore 18 ft.		Mizen 14 ft.	
BOWSPRIT	H	55	27	--	58	11½	-- (SPRITSAIL
	T1	--	--	--	52	--	2½ YARD)
	T2	55	--	--	--	--	--
	A	60	27½	--	45	--	--
JIB	H	41	13	--	38	7¼	-- (SPRIT TOPSAIL
BOOM	T1	40	13	--	34	--	2 YARD)
	T2	40	13	--	--	--	--
	A	40½	12½	--	36¼	--	--
MIZEN	H	40	12 ("MIZEN DERRICK")				
GAFF	T1	38	9				
	T2	--	--				
	A	38¼	8				
MIZEN	H	52	10 ("DRIVER BOOM")				
BOOM	T1	--	--				
	T2	--	--				
	A	--	--				

MAIN TOPMAST STUDDING SAIL BOOM (T2 only) L. 42 FT. DIA. 7½ in. one end 6 in. other
FORE TOPMAST STUDDING SAIL BOOM (T2 only) L. 38 FT. DIA. 7½ in. one end 6 in. other


MAY BE DUE TO CORROSION
WEDGE
REMOVABLE BREECH
58"
SWIVEL
SECT. A
SECT. B
BREECH LOADING SWIVEL GUN
1955 D.J. DORCY
0 1 2 3
SCALE 1½ IN = 1 FT.



ARMADA GUN

12/29/55 D.J. DORCY

TWO SIXTEENTH CENTURY BREECH-LOADING CANNON

By Don J. Dorcy

The accompanying drawings were made from two cannon presently exhibited in the Harding Museum in Chicago. Unfortunately, the Museum records are incomplete and contain little relative to the history of these weapons or their use and nomenclature of parts, etc. Both cannon were made of iron and are presently severely corroded and enough so that it could not be determined if there were ornamental or foundry markings on either.

Drawing No. 1 (page 47) covers a cannon taken from the wreck of the MARY ROSE (1509-1545) in 1836. The Science Museum in Kensington, England, describes the iron breech-loaders as "serpentines", but other descriptions such as "murdering pieces", "robinettes or rabinettes", "falconettes" and "sparrows" apply as well.

Several removable breeches or chambers were provided for each weapon. These would be loaded with powder and shot, then put into place and jammed against the end of the barrel by the curved wedge. A "touch hole" just aft and to the side of the chamber handle was used in the firing of the piece. It was not possible to determine if the handle may have been attached to the chamber at one end only or may have simply corroded away at the fore end. The outer piece may have completely encircled the barrel at section "B", or the cut-away could be due to corrosion. The purpose of the lugs projecting at this point could not be determined nor was it possible to check internal construction. The section is intended to show the external form only. The reinforcing rings are now half-round in section, but may have been more ornate at one time. The swivel, rather crudely forged from strap iron, is still attached to the trunions.

Drawing No. 2 (page 48) covers a cannon reportedly removed from the remains of a ship of the Spanish Armada that sank in the Irish Sea. If true, the piece would be of an era prior to 1588 or approximately a half century later than the previously described piece. This Armada Gun was kept on the roof of the "castle" part of the Harding Museum for many years and it is thought that this exposure had more to do with the present poor condition than its long immersion in the sea.

The stock is roughly square in cross section and there is some indication there may have been a knob on the end of it. Although the wedge is missing, the cannon was undoubtedly loaded and fired in the same manner as the smaller gun. The breech fits into the flare at the butt of the barrel. It was not possible to determine the location of the "touch-hole" due to excessive corrosion. The swivel appeared to be forged from iron strap the same as the smaller piece, but very little remains to-day. A comparison of these weapons with similar pieces removed from wrecks near Bermuda would indicate French or Spanish origin of the late sixteenth century.

0-0-0-0-0-0-0-0

METHOD FOR PRODUCING PLASTIC CASTINS FOR USE IN SHIP MODEL CONSTRUCTION

By Howard E. Boyle

Amateur model builders and others who lack patience for involved minature carvings, particularly if a number of duplications are involved, may welcome the idea of production in quantity with plastic castings. Although such products may not be suitable for the finest of scale models, still they will serve the purpose for the most part when building models of ships of the 16th and 17th centuries.

Numerous experiments have been conducted with various materials, but the best for this purpose - and all around plastic castings - was found to be a "phenolic" type called Durez 7420 produced by the Durez Chemical Corporation, North Tonawanda, New York.

Phenol resins use an acid catalyst that reacts with the resin so as to make it firm and harden without the use of heat. Preparation and use of the material is very simple. For every ounce (liquid measure 30 cc's) of plastic material, use 3 cc's of acid catalyst. Stir the mixture well and take care not to stir any bubbles in the mix, otherwise air-holes will spoil the casting. The catalyst measure of 3 cc's has been found to be the best for preparing mixtures up to about 10 or 12 ounces. Beyond this, the manufacturer recommends different proportions.

After the batch is thoroughly mixed, pour it slowly into the molds, and allow to stand for 8 or 10 minutes. At this point the mixture will begin to "set up" and curing may be hastened by placing the mold in an oven and gently warming so as to speed up the chemical action. It is not necessary to use an oven, but the production may be hastened in this manner and it has been found that the casting appears to have greater strength than those produced by the slower method. The casting should be ready for removal from the mold after about 15 minutes. Small castings require much less time to cure and are usually finished in 7 or 8 minutes.

There are several popular methods of making molds, but the easiest and recommended for beginners is the use of liquid latex. This method consists of brushing liquid latex on the master carving in layers, e.g. allowing each layer to dry before applying the next coat. Approximately eight coats will serve the purpose for most molds.

For durability in two dimensional work and bas-relief, the product known as "Plastigell" works fairly well. This product comes in cans and has the same general properties of putty. The product can be pressed right over the master carving and when formed, placed in an oven for curing. This method has been found most satisfactory for production of brackets or where a whole piece is required to be casted.

The master carving may be carved out of soft wood, soap or any other material that may be easily handled. In the case of gun port wreaths, which are bas-relief, soap offers most since it can be intricately carved without too much effort. When the carving is finished, place face up on a suitable surface such as glass and brush on layer after layer of latex, allowing each layer to dry thoroughly. After sufficient depth has been attained, back up the molding with a plaster backing and allow it to harden. The mold is now ready for use.

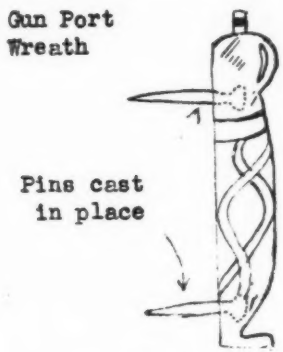
After the resin hardens, peel off the rubber mold and the casting is ready for painting and mounting. If desired, two small pins (lills) may be included in the casting and thus avoid drilling mounting holes etc. Any sort of nail can be included at the time the mixture is poured without causing too much trouble and can be of value in mounting the finished product.

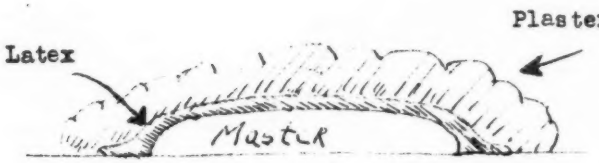
The preparation of molds for whole figures such as figureheads, members of the crew and similar requires some additional comment. The statue to be reproduced should be placed on a piece of glass, or similar smooth surface, and coated generously with latex. There should be a lap completely around the base of the figure so as to provide a purchase later on in the casting process. A tin plate that has been cut so as to match the bottom of the mold will prove most helpful in holding the mold upside down during the curing process. After curing has been completed, the rubber mold is peeled back and off of the figure in the same manner as a rubber glove.

With a little care, a large number of accurate castings can be made from one mold and should suffice for a dozen ship models. Also, with a little experimentation, all kinds of castings may be made and the field is limitless in its applications. The toy industry has already demonstrated fully the possibilities of casting whole ship models - in sections of course. It is fully appreciated that some craftsmen may object to model production on a wholesale basis, but it is believed that the methods herein described will pave the way for production of ornate models that have been so far avoided by amateur craftsmen.

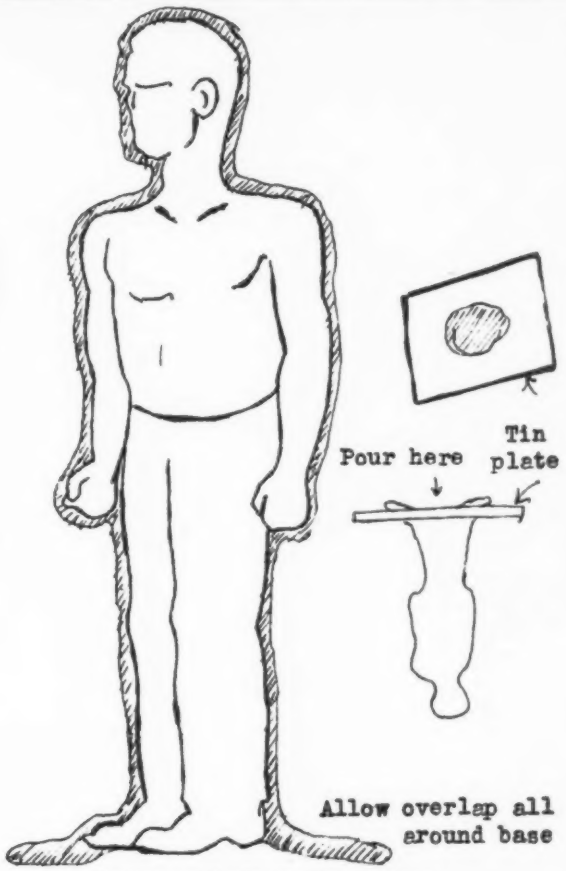
0-0-0-0-0-0-0-0

PLASTIC CASTINGS

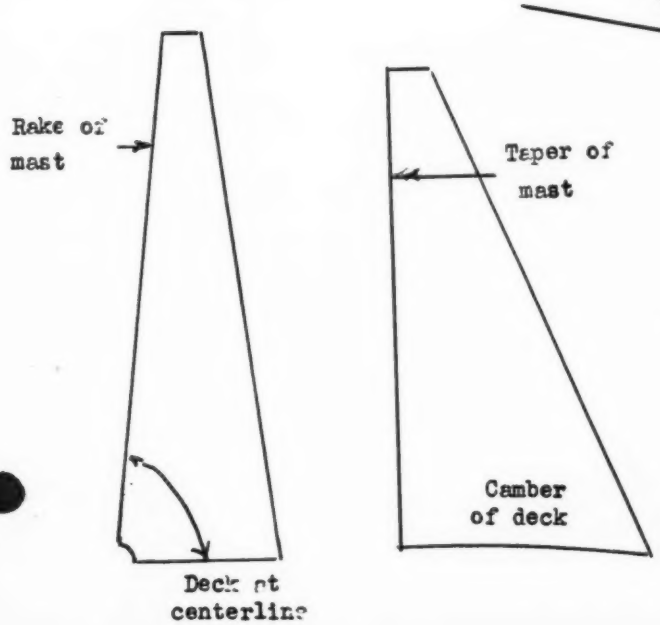




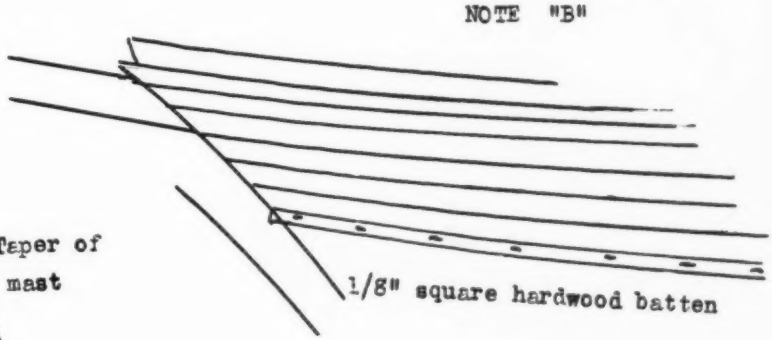
Note: Liquid latex brushed on in layers, is peeled off the casting like a glove



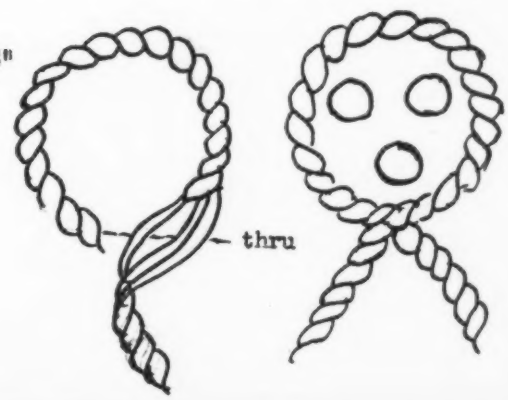
NOTE "A"



NOTE "B"



NOTE "C"



Model of Privateer "PRINCE De NEUFCHATEL"
By Charles Sayles - Photo by S. Roy

SHIP MODEL CONSTRUCTION NOTES
By Richard Orr

NOTE "A" - Jigs to Check the Setting-Up of the Lower Masts: (see page 51)

These are indispensable in correctly setting-up the lower masts. Always use the jigs as a constant check when sett-ing up stays and shrouds, for if we start off out of plumb and off rake in the beginning, we are in trouble all the way up. After much pulling and hauling here and there, we wind up with an unsatisfactory job.

The templates, as portrayed, are made from stiff cardboard or thin wooden board. The one for the rake of the mast is applied at the back of the mast on the center line. This is copied from your plan. A template for each mast, if rake varies, is necessary. The other is made to the camber or crown of the deck and the taper of the mast. This is applied at center of mast at the side.

Knowing of the incompleteness of some ship model plans and also knowing that many of us have become detail conscious, I will endeavor, from time to time, to submit sketches of these hard-to-find details. Suggestions from members would also be welcome.

NOTE "B" - Scribing Planking

Due to the butt grain in the wood of a hull, scribing in the planking has been a problem. No matter how careful one is, there is a tendency to run off the lines. This method which I will explain, although taking a little more time, will bring satisfactory results.

Starting with the cap rail as a basis, measure down at frame stations figuring on a plank being 8 inches wide with a long taper to approximately 5 inches at the ends. At an 1/8 inch equals 1 foot scale, this would mean from a strong 3/32 inch to a light 1/16 inch at the ends. Make a hardwood pattern 1/8 square. Drill at 1/2 inch intervals to take a standard lill or bank pin. Tack the batten to points marked on the station lines. Then fair the batten by eye, moving up or down so as to have a fair line with no humps. Now fasten in between at the remaining drill holes. Take an ordinary paper cutters wheel (small diameter) and follow the batten, holding it firmly against the same. At the same time roll the tool back and forth, but do not exert too much pressure. Remove batten and clean out the groove <u>lightly</u> with a small knife or file.

On an actual ship, planking was barely discernable due to the caulking. The tendency with model builders is to make this too pronounced.

NOTE "C" - Thread Eye and Shroud Set-Up

How exasperating it is to set up deadeyes and shrouds, and then when pulling them taut with a lanyard, to have the deadeyes turn and slip. Here I have tried to portray a foolproof method of securing these so that there is no chance of them slipping.

With a small awl, make an opening thru the lay of the line you are using for a shroud. Pass short and thru. Then put a small amount of glue in the groove of the deadeye. Insert the deadeye in the loop and pull tight. A light seizing is sufficient, as the seizing of the sheer pole goes over this. The three seizings above are incorporated with the first, thus preventing the ratlines from becoming too bulky at these points.

BOOK REPORTS

"Seventeenth Century Rigging" by R. C. Anderson, Published by Percival Marshall & Co. Ltd., 19-20 Noel Street, London W. 1. Priced at 25/0 shillings; 146 pages, 9 photographs, 23 plates of drawings including one folding plate.

To those members who know, or are fortunate enough to own the author's previous book titled "Rigging of Ships in the Days of the Spritsail Topmast, 1600-1720", it will be sufficient to say that the present undertaking is based on that volume. For some years now, ship modellers and research workers have had to rely on borrowing the original work from their local library or more fortunate fellow craftsmen. The present book is by no means a reprint of the original edition, but certainly the author has borrowed heavily therefrom and produced a most successful and useful new reference source.

In writing this book, the author has gone slightly beyond the strict limits of the seventeenth century as no really fundamental changes in rigging practice did occur until about 1725. Those portions of the older text which dealt with foreign rigging practices have been omitted in order to avoid confusing the modelmakers. To offset the reduction in text, the author included additions based on further studies and restoration of a 70 gun ship of 1692 belonging to the Earl of Pembroke. Otherwise, the new volume is based on the rigging of the ST. GEORGE model which was in the care of the author prior to its being shipped to America.

Photographs, with the exception of the frontpiece which is of a modern model of the PRINCE, are confined to the ST. GEORGE of 1701 and a 70 gun ship of 1692. The photographs of plates depicting rigging shown in the earlier work have been omitted and a large folding plate drawn by Laurence A. Pritchard M.I.N.A. containing the spar and rigging plan of the ST. GEORGE has been included.

Illustrations have been enlarged and are contained on 23 plates and are readily accessible for ready reference. This manner of presentation by the publishers appears to be well planned and in only one or two instances is it necessary to "turn back" from the text in order to refer to a particular figure.

There is no doubt that Mr. Anderson's latest work is a "key reference" for ship-modellers and nautical research workers. The finished product is extremely well presented and the price appears to be within the reach of all. An additional value may also be included in this work when one considers the background of the author. Mr. Anderson is President of the Society for Nautical Research and is a trustee of the National Maritime Museum. He has had unequalled facilities for research in this field and is considered one of the leading authorities of the world on matters relative to rigging in this period.

Review by John Lang, MSNR, NRG

"Shipbuilding in Minature" by Donald McNarry, published by Percival Marshall & Co. Ltd., London, England. Price 12/6, 158 pages, 40 photographic plates and 30 illustrations in the text.

During the latter years, discerning visitors to the annual "Model Engineer" Exhibition held in London have been delighted by the exquisite workmanship of the gems of minature shipmodelling built by Donald McNarry to a uniform scale of 50 feet to the inch. The builder has now written this book in which he gives the reader the benefit of the experience gained in building these models.

Small in format this book may be, but it is packed from cover to cover with information of interest and value to the modeller of minatures - and even larger

for that matter. Although the author is a professional model builder, he has not hesitated to make available to others the practical methods he follows in the construction of his own models.

Three short chapters are devoted to tools, materials and sources of information. His main chapters are devoted to "methods", which comprise half the book and "cases" in which chapter of about 20 pages, the author describes favorite methods of building these important items. It is evident that the author realizes every modeller has his own particular preferences for tools and materials and in describing those he prefers, he merely points out those which have served him best. Addresses for sources of supplies are supplied for those who may wish to use them.

There is no attempt made in this book to describe the construction of one or more vessels and there are no measured drawings of deck fittings etc, but the text and illustrations do show how the author's methods can be adapted for any particular model and in any scale. In the rigging of models, the author clearly indicates he does not attempt to put in any particular piece of rigging in one length, but uses a number of lengths of line that are put in position in whatever order that is most convenient. In following this procedure, the effect of correct rigging is achieved in the construction of a scenic model. The numerous photographs and descriptions of familiar models should prove of interest to the reader and incentive to the builder. This work is definitely a key referece....

Review by John Lang, STREET, Somerset, U.K.

"Clipper Ships and Packets 1851-1853" by Duncan MacLean
Limited edition of 500 priced at $2.00 each. Reprinted
by "Log Chips" (John Lyman), 7801 Gateway Blvd., Wash (28) D.C.

In mid-nineteenth century, the building of a new sailing vessel was front page news in Boston and one of the leading daily papers reporting waterfront activities was the "Atlas". The marine reporter covering the subject has long since been identified as Duncan LacLean. MacLean, a former seaman, was thoroughly versed in the intricate details of shipbuilding as well as in the art of seamanship. Most of his descriptive reports have long lay buried in the dust until John Lyman gathered up about 40 descriptions and reproduced them as originally presented (via the photolithographic process). The entire work consists of 56 pages of descriptive material plus index and miner matter. It should prove of value to the researcher of sailing vessels of this era and in view of the limited quantity available - the investment cost appears to be most modest.--

Staff review

0-0-0

QUERIES AND ANSWERS

46-1....from Edward E. Powell (reply through the Secretary), who would like to be advised as to the designer and whereabouts of detailed plans for the Yachts' CARISSIMA and LONE STAR. These craft were built in Kiel, Germany in 1929 by Germania Werft (now in liquidation). There are some reports that they were American designed, but this has not been confirmed. The stern profile (cruiser type) is urgently needed to complete the study.

46-2....PFC Ken Smalley, 8375th AU, APO 949, Seattle, Wash. - would like to know where he can obtain copies of Dwight Simpson's "Small Craft, Construction and Design", Trans. SNAME, 1951 and the May 1953 issue of Bureau of Ships Journal containing report titled "Decay Studies in Wooden Ships and Boats".

Answer to query 26-5 by Thomas Hornsby - The carpenter's certificate for the Philadelphia packet ship SHACKAMAXON describes her only as having "an Indian figure head". The Painting by C. P. Williams shows an Indian brave with legs widespread, clad in a knee length buckskin shirt and leggings. He stands on the stem with his right foot and right arm extended forward, as if reaching for something beyond his grasp.

Answer to an unpublished query by J. H. McLellan relative to present location of the ship BYRON - by Mr. Daniel F. MacNeil of San Francisco -- After considerable research regarding these San Francisco buried vessels, it is still not possible to tell where each and every ship lay at the time of the starting of the lower Market Street fill. Most of the ships at the time were rotted, decayed and sunk deep into the mud. There were 526 ships abandoned by their crews during the "gold rush" and left to the mercy of the tides and winds. As their moorings rotted, the vessels floated together in bunches. The better craft were eventually taken over by "warehousemen" and "hostelers" who bought or simply took possession of the old hulks, housed them over with roofs, cut holes in their bows and sides for doors and windows, and then run planks or primitive piers from the old ships to the shore - which at that time was Montgomery Street. As far as is known, the only spot where one old hulk is definitely known to be located is that of the NIANTIC, which is under the "Niantic Building" at the corner of Clan and Sansome Streets. A bronze tablet fastened to the building states "The emigrant ship NIANTIC stood on this spot when the water came up to Montgomery Street. Converted to other uses, it was covered with a shingle roof and provided space for offices and stores on the main deck." The ship BYRON is listed as one of the vessels buried in the Montgomery Street Fill. The vessel was still in the mud February 1857, but it is not known exactly as to where. My article about these ships titled "Over the Bones of Ships" was published in the July, 1952 issue of the NAUTICAL RESEARCH JOURNAL.

0-0-0-0

RECENT ACTIVITIES OF SHIPMODEL AND RESEARCH SOCIETIES

The San Francisco Chapter of N.R.G. met March 23 to pay final respects to memory of President Captain Robinson and Program Chairman Smith. Plans were made to carry the organization onward in the familiar routine and Acting President Surridge agreed to continue to officiate until his successor was chosen. Colored movies of salvaging the canned salmon cargo of the sunken ship DIAMOND KNOT and the reconditioning of the ship BALCLUTHA completed a most interesting evening. (Cmdr. James H. Willey, Secretary)

The Pacific Marine Research Society met February 27 and had for speakers, Max O'Starr - who discussed the ship SAVANNAH and his model of her, also Dr. Snead who displayed more of his cast minatures that he uses to embellish his ship models. An interesting evening was enjoyed by the 30 members and guests present. (Reported by W. L. Nye)

The Ship Lore & Model Club met March 5th at the Pen & Brush Club in N.Y.C. to hear Mr. Mason M. McDonald discuss "Side Launching on the Great Lakes" and "Docking Naval Vessels of the Missouri and Essex Classes". (S. Milton Clark, Secretary)

The New York Ship Craft Club recently elected Mr. William J. Cavanagh as President, and Mr. Joseph Kacsur as Vice President. Captain R. E. Cropley continues to serve as Secretary-Treasurer. The organization is quite active and holds all meetings at the Seamens Church Institute.

The Richmond Ship Model Society played host to the Washington Ship Model Society at a joint dinner meeting on April 7th in Richmond. The Washington group presented the "Friendship Trophy" for use as an annual award to members of the Richmond group who may take an active part in future exhibitions to be held in Richmond. The trophy, a large scale replica of the bower anchor of the CONSTITUTION, was constructed by Mr. J. E. Beach, W.S.M.S., N.R.G. and contained wood from "Old Ironsides".

The Washington Ship Model Society has completed plans for the 27th annual exhibit which will be held at the Truxton-Decatur Museum from May 8th until June 24th. The Museum is operated and maintained by the Naval Historical Foundation and is at present contained in the former coach house of the old Decatur Mansion in the District of Columbia.

INTRODUCING NEW MEMBERS

BLOSSER, GALE R. - 501 Gonzalez Drive, San Francisco 27, California - Mr. Blosser indicates he is interested in the subject of 'whaling' and it is the Secretary's thought that our next issue of the JOURNAL on the subject should contain some contributions from our new enthusiasts.

BOUCHER, WILLIAM CLINTON - 4545 - 46th Avenue, N. E., Seattle 5, Washington - Models ships of the 1820-1860 era and is presently constructing the SWORDFISH. His field of research now covers the schooner EXACT which brought the first settlers to Seattle area of Puget Sound, but is having difficulty. Any member having data on the EXACT will find Mr. Boucher most appreciative.

DORSETT, MD, Dr. E. LEE - 120 Orchard Avenue, Webster Groves 19, St. Louis County, Missouri - Author and collector of data relative to the subject of "whaling", maritime history of the State of Maine and old sailing ships. Dr. Dorsett advises that he has an almost complete reference library (in English) on the subject of whaling and a large collection of books on old sailing ships. He is also a member of Mystic, Nantucket and New Bedford Historical Societies.

FINI, ROCCO J. - 165 West Broadway, Apt. 888, South Boston 27, Massachusetts - Mr. Fini is a model builder and prefers warships from the 17th century to date. He is interested in speedboats and similar enthusiasts please take note.

LUSCI, VINCENZO - Via Castelfidardo 2, Florence, Italy - Mr. Lusci is a ship model builder of considerable ability and a collector of plans and prints of vessels of the 1500-1850 era. He would like to compare notes with anyone interested in sailing war vessels regardless of nationality. Correspondence may be in Italian, Spanish, French or English. The Secretary hopes to print some pictures of Mr. Lusci's models in a future issue of the JOURNAL.

PLANT, EDWARD F. - 5613 Randolph Street, Hyattsville, Maryland - Mr. Plant is interested in most nautical matters of interest and has executed some interesting small boat designs for personal use. He is an ardent fisherman and small boating enthusiast.

WIRT, Lt. WILLIAM O. - Navy 824, c/o Fleet Post Office, San Francisco, California - Lt. Wirth is leaving the States for a tour of duty in the Pacific area very soon and is planning to continue his ship model construction activities when time permits. He is particularly interested in obtaining information relative to plans suitable for built-up ship models and would appreciate any help afforded on the subject.

CHANGES OF ADDRESSES

ALLEN, JAMES A. - 503 W. Robinson Street, Carson City, Nevada
BRITTON, WRIGHT - West Southport, Maine
EASTMAN, RALPH M. - 197 Billings Street, Atlantic 71, Massachusetts
KUMP, JOHN H. - 18632 Fondale, Azusa, California
JERZ, JOSEPH S. - 1952 W. Iowa Street, Chicago 22, Illinois
McLELLAN, J. HENRY - c/o Townsend, Dabney & Tyson, 184 Middle St.,Portland,Maine
McNAMAR, EDWARD G. - 6821 S.E. Mall, Portland 6, Oregon
MOSKOVICS, GEORGE L. - 7809 Torreyson Drive, Los Angeles 46, California
PECHIN, Dr. S. P. - 284 Wayne Avenue, Lansdowne, Pennsylvania
SHANK, MEHREL, - Box 4867, University of Kentucky Post Office, Lexington, Ky.
WILLIAMS, W. J. - Box 259 A, Rt. 13, Richmond, Virginia

The Secretary regrets to announce he has just been advised that Mr. Horatio C. Flagg, of Olympia, Washington, passed away very suddenly last Fall.

The NAUTICAL RESEARCH JOURNAL is published by members of the NAUTICAL RESEARCH GUILD. Membership dues are $5.00 per annum and include all issues of the Journal published during the year, plus index of the current volume, plus copy of the latest Membership Roster. New members receive the numbers which have been previously issued in the current year.

Dues are payable January First of each year and are in force until receipt of the written resignation of the member. Opinions and assertions appearing in the Journal are the private ones of the writers. All rights are reserved and republication of material published should not be accomplished without the permission of the Secretary.

The NAUTICAL RESEARCH GUILD is a non-profit and co-operative organization founded in 1948 by Harry D. Hamilton. All income of the Guild is used to defray publication and business expenses of the organization. No officer or member receives any monetary compensation for his contribution.

SECRETARY-TREASURER, James W. Harbin, Jr., 4110 Beall St., Landover Hills, Maryland
MEMBERSHIP CHAIRMAN, Willis L. Nye, 3038 Bridge Street, Hayward, California
ASSISTANT SECRETARY, Thomas Hornsby, 537 Boyer Road, Cheltenham, Pennsylvania
ASST.CHAIRMAN MEMBERSHIP COMMITTEE, F.J.Watson,Jr.,205 David Dr.A-1, Bryn Mawr, Pa.

THE SECRETARY'S REPORT TO MEMBERS OF THE NAUTICAL RESEARCH GUILD

Since preparing the last report, the Secretary has had the pleasure and privilege of meeting some of the "out-of-town" members of the Guild. The various discussions and ideas advanced would indicate continued deep interest in the progress of our organization and this is confirmed by numerous notes to the same intent received by the Secretary. It is a pleasure to report that our publication is receiving very favorable attention both at home and abroad - which is indeed a compliment to the very fine material made available for publication by our members. Please keep up the good work.

Included with this issue is a newly designed form which we hope will attract new members to the Guild. One side "Recommendation for Membership" may be used to introduce a prospect to the Membership Chairman or Assistant, or the Secretary. Either one of these will then contact the nominee with a letter and sample JOURNAL etc., in an effort to attract his attention to the advantages offered by the N.R.G. If the candidate is sufficiently interested, he will fill out the Membership Report portion of the form and return to the Secretary - - with annual dues of course. It would be most helpful if every active member would enlist at least one new member to the Guild this year.

The next issue of the JOURNAL will include an unusual item on the old Boston Harbor tug BRADLEY by Professor Evers Burtner, and with hull plans redrawn from the original lines by Mr. Roy Rogers. One plate will include interior details of the ship that should prove of value to our "super detail" model builders. Other articles of merit will be available and the Secretary promises to take pains to include the "Letters to the Secretary" department, which had to be omitted this time due to lack of space. Also to be included will be details on the Jamestown Festival of 1957 with particular reference to the SUSAN CONSTANT, the GODSPEED and DISCOVERY. Finally, the Secretary wishes to acknowledge with thanks, aid rendered by Walter De Genring in the preparation of this number. Mr. De Genring prepared copy for editorial review which aided earlier production of this issue than would have been possible otherwise.

INTRODUCING NEW MEMBERS (continued from page 56)

LUCAS, CARL S. - Jacksonville Drive, Box 391, Parsippany, New Jersey -- is immediately interested in the building of a 4½' stern wheeler with full remote radio control. Otherwise, Mr. Lucas is favorably inclined to wooden ships. He is an electronic technician in the Bell Laboratories and we hope to hear more from him on the subject of how to maneuver a working model at a distance.